Translated Annexes to IPER

SMB-PT171 (PC04 402 BUS)

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valve member only slightly from the valve seat, that the valve member starts to vibrate due to the flowing fluid in the course of its shifting movement in the expanded interior section. These vibrations can strike the valve member like a bell on the outer housing, making it noticeable as an unpleasant rattling noise. This rattling noise can be heard, possibly throughout the entire building, through the sanitation-system supply line.

From GB 661 479 A, a hydraulic shock absorber is already known, which has a two-port valve in the interior of its shock-absorber housing. The two-port valve of the known shock absorber has a valve housing with an inner ring flange, which acts as a valve seat for a closing body. The closing body has, on its die, a flow-through channel, in which is provided a non-return valve active in the opposite flow-through direction. When the shock absorber moves, in the interior of the shock-absorber housing a low pressure is generated, which lifts the closing body from its valve seat until its lifting movement is limited by spring-elastic, finger-like stops projecting inwards and arranged in a radiating pattern relative to each other.

However, in the applications of a hydraulic shock absorber, those noises, which could be generated in the interior of the shock absorber just by the flowing hydraulic fluid are of no importance whatsoever. A play-free lifting movement in the radial direction is therefore not a goal - instead in the shock absorber known from GB 661 479 A, the finger-like stops should limit the lifting movement of the closing body in the axial direction caused by the low pressure.

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Therefore, there is the objective of creating a backflow preventer of the type named above, which does not become noticeable through the generation of disruptive noise even for low flow rates.

For the backflow preventer of the type named above, the solution according to the invention to meet his objective is characterized in that, especially for noplay guidance of the valve member, a spring-elastic valve member guide is provided, which acts between the valve body and the housing inner wall surrounding the interior section.

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The backflow preventer according to the invention has a spring-elastic valve member guide, which is effective between the valve member and the housing inner wall surrounding the interior section. This valve member guide holds the valve member, preferably at least in its movement zone near to the valve seat, without play in the insert housing, such that disruptive rattling noise due to a valve member vibrating in the insert housing cannot be generated.

To be able to guide the valve body over its entire valve body periphery in the insert housing with as little play as possible, it is useful if the valve member guide has at least two, preferably more than two spring arms, which contact the housing inner wall and/or the valve member.